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November 4, 2003

Commissioner William Keese, Chair
Commissioner Robert Pernell
Commissioner Art Rosenfeld
Commissioner James Boyd
Commissioner John Geesman

California Energy Commission
1516 Ninth Street
Sacramento, Ca 95814-5512

RE: COMMENTS ON ADOPTION OF PROPOSED 2005 BUILDING ENERGY EFFICIENCY STANDARDS

Dear Commissioners:

Please accept these comments and recommendations to modify language contained in the final 15-day language of proposed changes for the 2005 Building Energy Efficiency Standards.

- ***2005 Standards for Residential and Nonresidential Buildings—Express Terms 15-Day Language, October 2003***

1. Section 150(j) 2 Water Piping and Cooling System Line Insulation Thickness and Conductivity; Exceptions

   *Recommendation:* Modify Exception 5 to read as follows—

   EXCEPTION 5 to Section 150 (j) 2: Piping installed in attics with a minimum of four inches of ~~blown~~ attic insulation on top of the piping shall not be required to have pipe insulation.

   *Reason:* There's no data supporting the thermal benefits of blown attic insulation greater than can be achieved by other forms of attic insulation, such as using glass fiber batts and blankets. So long as sufficient insulation of any kind (e.g., 4 inches) is above the insulation thermal protection is provided to the water piping system.

2. Section 150(m) Air-Distribution System Ducts, Plenums, and Fans; 1 CMC Compliance

   *Recommendation:* Change the minimum duct R-value requirement from R4.2 to R6. Inconsistent duct R-value requirements between the nonresidential and residential standards will cause increases in the cost of these materials because of the cost associated with maintaining adequate stock by manufacturers and distributors for all materials.
   Minimizing the range and type of duct products and R-values to at least R6 will greatly increase market acceptance, result in greater savings for homeowners and statewide energy use, and provide greater consistency with California's energy standards to those in other states.

3. Section 151 Table 151-C, Alternative Component Package D

   *Recommendation:* Change the required duct R-value in climate zones 6, 7, and 8 from R4.2 to R6. See reasons stated above in #2.

- ***Residential ACM Manual***

1. 6.2.4 Controlled Ventilation Crawl Spaces (CVC); Mineral Wool Insulation Materials

   *Recommendation:* The term "mineral wool" is misapplied and should be changed to mineral fiber or reworded to include the two categories of mineral fiber products: glass fiber and mineral wool. Modify this language as follows—

   <u>Glass Fiber and</u> Mineral Wool Materials

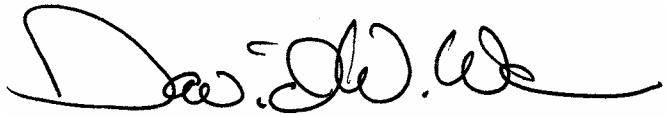
   - Direct Earth Contact—<u>Glass fiber and</u> mineral wool batts shall not be installed in direct earth contact unless protected by a vapor retarder/ground cover.

   *Reason:* The criteria referenced in the UBC for insulation is ASTM Standard 665 that classifies *mineral fiber* products as composed of "fibers made from mineral substances such as rock, slag or glass processed from a molten state into a fibrous state." There are two major types of mineral fiber insulation, fiberglass and rock wool, and both types are made from inorganic noncombustible materials and considered **equivalent** as far as insulation quality, performance, and code compliance.

Owens Corning and the North American Insulation Manufacturer's Association (NAIMA) have worked diligently with staff to insure these proposed changes are equitable to all parties; and staff has been exceptionally open to input provided by the many stakeholders in this process. However, as these standards move forward and become the baseline for building efficiency in 2005 one major flaw will be

immediately felt—the proposed 2005 standards do not carry any provisions for thermal improvement to the building envelope. The uncertainty of energy costs and delivery will continue to plague our future and it's unfortunate these new standards could not be forward thinking enough to investigate cost effective improvements to the building shell. Improvements in the building thermal envelope are the most cost effective, longest lasting and most durable approaches to building efficiency. I am hopeful that in the next cycle of possible revisions to these standards the CEC, Owens Corning, and representatives of the insulation and building industry will find common ground to support these kinds of building efficiency improvements.

Sincerely,



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